

***United States Court of Appeals
for the
District of Columbia Circuit***



**TRANSCRIPT OF
RECORD**

FOR MR. CHIEF JUSTICE MARTIN

UNITED STATES
COURT OF APPEALS FOR THE
DISTRICT OF COLUMBIA

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UNITED STATES COURT OF APPEALS FOR THE
DISTRICT OF COLUMBIA.

No. 6615.

CAMBRIDGE TRUST COMPANY, Executor of the
Estate of Leonard T. Troland, Deceased,
TECHNICOLOR MOTION PICTURE CORPORATION
AND
TECHNICOLOR, INC.,

Appellants,

v.

CONWAY P. COE, Commissioner of Patents,
Appellee.

818

BRIEF FOR APPELLANTS.

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CONWAY P. COE, COMMISSIONER OF PATENTS,
APPELLEE.

BRIEF FOR APPELLANTS.

I. STATEMENT OF THE CASE.

This is an appeal from that part of a final decree of the Supreme Court of the District of Columbia dismissing a bill as to certain claims involved in a suit against the Commissioner of Patents to compel the issuance of Letters Patent under United States Code Title 35, Section 63 as amended [Section 4915 of the Revised Statutes (Comp. Stat. Section 4960) as amended March 2, 1927 (44 Stat. L. 1335)].

Appellants are: The Cambridge Trust Company of Cambridge, Massachusetts, the Executor of the Estate of one Leonard T. Troland, the inventor whose application is the basis of the bill; Technicolor, Incorporated, which has an interest in said application under a mortgage; and Technicolor Motion Picture Corporation, the mortgagor and owner of the equity in said application, which operates commercially under it. The original Appellee was Thomas E. Robertson as he was then Commissioner of Patents of the United States. On the appoint-

ment of his successor, Conway P. Coe, said Coe was substituted as the Appellee. The status of the Appellants and state of the title have been admitted in the answer.

The subject matter of the application in suit is a motion picture film which bears a series of pictures in natural colors and a sound-track developed in silver, that is, in black-and-white, alongside the pictures (see *Exhibit No. 6* which is before the Court as a physical exhibit). The application contains twelve claims, which in varying scope cover the invention in terms of both process and product.

Of the twelve claims in the application, the Supreme Court of the District of Columbia granted four, namely, claims 6, 7, 8 and 9, which are *process* claims, and dismissed the bill as to the remaining claims, including all the claims for the *product*.

The Defendant has taken no appeal and therefore the allowed process claims 6, 7, 8 and 9 are not before the Court for adjudication.

The Appellants formally waive claims 1, 2 and 10. Claims 1 and 2 cover a film so treated and prepared as to be adapted for use in practicing the preferred process; they are in effect claims for a stage product. Claim 10 is for a particular feature of the preferred process. No relief is now asked as to these claims.

Consequently, *the sole issue presented on this appeal is the patentability of claims 3, 4, 5, 11 and 12, which are claims for the product,—the new film.*

These five claims (3, 4, 5, 11 and 12) define, in slightly varying scope or in slightly varying forms of expression, the *same product*, which consists essentially in a *motion picture film, having pictures in natural colors and a sound record in black-and-white.*

On the uncontradicted evidence *this film was new* at the time of Dr. Troland's invention, and was so found by the Trial Court (Finding of Fact No. 9, R. p. 13) :

“9. Troland was the first, so far as the record shows, to combine on the same film motion pictures of the scene

in natural colors and a record of the accompanying sound in black and white."

In allowing *process* claims and denying *product* claims the Trial Court held (Memorandum Opinion, R. pp. 11-12):

"I think that the plaintiff is entitled to a patent including claims Nos. 6, 7, 8 and 9. The allowance of the remaining claims will be denied, both on the grounds given by the Board of Appeals of the Patent Office, and the decision of the Supreme Court in the case of *Paramount Publix Corporation v. American Tri-Ergon Corporation*."

As we shall point out later, the *Paramount Tri-Ergon* case (294 U. S. 464) is not in point.

The other ground of the Trial Court's holding, namely, the disallowance of the product claims covering an admittedly new film, on the reasoning of the Board of Appeals, while reversing the Board of Appeals and allowing the process claims for the process by which the new film is made, was clearly error.

In this connection the Board of Appeals of the Patent Office said (R. p. 93):

"We find no distinction as to the patentability between the conception whether stated as . . . the completed film as in claims 3, 4 and 12; or the method claims 5 to 10."

ASSIGNMENTS OF ERROR RELIED UPON.

All assignments of error are to be relied upon in so far as they relate to claims 3, 4, 5, 11 and 12, but in so far as they relate to claims 1, 2 and 10 they are waived.

They are as follows:

(1) In holding that the Bill of Complaint should be dismissed as to claims 3, 4, 5, 11 and 12 of Troland's application Serial No. 327,419, filed December 20, 1928, on the ground that said claims do not define any invention.

(2) In not holding that said claims 3, 4, 5, 11 and 12 and each of them define patentable invention.

(3) In denying the allowance of said claims 3, 4, 5, 11 and 12 upon the grounds given by the Board of Appeals of the Patent Office.

(4) In denying the allowance of said claims 3, 4, 5, 11 and 12 upon the grounds given by the decision of the Supreme Court in the case of *Paramount Publix Corporation v. American Tri-Ergon Corporation*.

(5) In decreeing that the Bill of Complaint be dismissed as to said claims 3, 4, 5, 11 and 12 and each of them, whereas the Court should not have dismissed the Bill of Complaint as to those claims and each of them.

(6) In decreeing that the Bill of Complaint be dismissed as to said claims 3, 4, 5, 11 and 12 and each of them, whereas the Court should have granted the prayer of the Bill of Complaint as to said claims and each of them.

(7) In not decreeing that a patent should issue according to law for the improvements or inventions defined in each and all of said claims 3, 4, 5, 11 and 12 recited in paragraph 7 of the Bill of Complaint.

II. THE INVENTION.

The Troland invention relates to motion picture film having a sound-track on the margin of the picture film for reproducing the sounds accompanying the scene depicted. Most of the Troland claims are restricted to film having the scenes recorded in natural colors and the sound-track in black-and-white. All the other claims are restricted to film on which the sound is recorded photographically and the scenes are recorded by imbibition, that is, by a mechanical printing process in contra-

distinction to a photographic printing process. And some of the claims recite both that the pictures are in natural colors and also that they are formed by imbibition. Thus claims 1, 2 and 10 (no longer in issue) are limited to imbibition, claims 3, 4, 8, 11 and 12 are limited to scenes recorded in natural colors and the remaining claims 5, 6, 7 and 9 contain both limitations, all of claims being limited to a photographic or black-and-white soundtrack. The Trial Court allowed claim 8 of the second group and claims 6, 7 and 9 of the third group.

As required by the patent statutes the Troland specification describes the preferred method of practicing or producing the subject-matter of the claims by a full outline of the general procedure and by reference to copending applications for details useful in practicing the method. Inasmuch as this preferred method has been used by the Technicolor Motion Picture Corporation, assignee of the Troland application, exclusively since about the time of the Troland application, it is hereinafter referred to as the Technicolor process.

As illustrated in *Exhibit 5*, the Technicolor process involves the use of a cina-positive, that is, a positive motion picture film sensitized to receive photographic prints from negative film. First, the sound record is printed, from an ordinary sound negative, along one margin of the film. In printing the sound record, the picture spaces are masked so as not to be exposed by the printing light. Then comes the first departure from the ordinary process of forming both sound-track and pictures photographically in black-and-white.

In the ordinary all black-and-white process the next step is photographically to print the pictures in the blank picture spaces. Then both sound and pictures having been printed photographically, they are together simultaneously developed to convert the latent sound and picture images into black-and-white silver images.

In the Technicolor process, on the other hand, the next step after printing the sound-track is to develop and fix the film. This not only changes the sound-track from latent form into

a black-and-white silver record but it desensitizes the picture spaces, removing the light-sensitive silver salts and leaving nothing but transparent gelatine in these spaces. At this stage of the process the sound-track is completed but the picture spaces are unsuited to receive prints of any kind. They can not receive photographic prints because they are now desensitized; and they can not receive imbibition prints because the imbibition dyes would diffuse and blur as in printing on a blotter. Consequently the first step in the imbibition stage of the process consists in conditioning the gelatine to receive the dye without blurring. This is effected by bathing the film in a solution of basic chrome alum as described on page 4, lines 19 to 22, of the Troland specification (*Exhibit 1*, R. p. 52). The imbibition prints are then applied to the aforesaid picture spaces by means of printing matrices made from color-separation negatives.

The color-separation negatives are exposed in a camera arranged to expose each negative to only one color aspect of the scene. In a three-color process three negatives are exposed to light of the three primary colors, red, green and blue respectively. In the case of a scene composed of a red barn, green foliage and a blue sky, for example, an image of the red barn is formed on the red-recording negative, an image of the green foliage is formed on the green-recording negative and an image of the blue sky is formed on the blue-recording negative. From these three negatives are printed three matrices adapted for imbibition printing. The matrices are then soaked in appropriate dyes and successively pressed against the positive film which has already received the sound-track along its margin and which has also been conditioned to prevent blurring of the dyes imbibed from the matrices.

This completes the product claimed by Troland, namely, motion picture film having a black-and-white sound-track and pictures produced in natural colors and/or by imbibition. Samples of the various films employed in the Technicolor process appear in *Exhibit 6* (Physical Exhibit).

Commercial Success.

Shortly after the Troland invention this film was placed on the market by Technicolor Motion Picture Corporation and it has since enjoyed large and continuous commercial success (Finding of Fact No. 7, R. p. 13). In the few years during which the film has been available (almost entirely depression years) Technicolor has produced approximately two hundred and sixty-four pictures by the Troland process, totaling upwards of 125,000,000 feet of film, and the film has been displayed in practically every country in the world (*Exhibit 8*, R. p. 122).

Its Utility.

The new film bearing pictures in natural color and a sound-track in black-and-white may be used in any theater anywhere with accurate sound reproduction. Colored sound-tracks may not be so used for many reasons. One reason is that they have only a small effect on light of the same color. Inasmuch as this light passes through the colored sound-track without being modulated in accordance with the sound recorded by the track, it seriously interferes with faithful reproduction of sound (R. pp. 33, 34, 43 and 44).

Another reason why colored sound-tracks are not satisfactory is the fact that different kinds of photoelectric cells have different degrees of sensitivity to light of different colors. If the color of the sound-track is right for one kind of sound it is wrong for others. The principal types of cells in use today are the potassium and caesium cells. Some theatres have one kind and some the other kind. Thus, if the color of the sound-track be chosen to give the best results obtainable with a colored sound-track it is adapted to be used only in a fraction of the theatres. In this connection the Trial Court found (R. p. 14):

“22. A value of the Troland invention lies in the fact that with the black and white sound track it is possible to secure with colored motion pictures accurate sound reproduction with any one of the various types of photoelectric

cells used by theater exhibitors throughout the world in the reproduction of talking motion pictures."

"Cinecolor" Process.

Technicolor is the only company in the field producing, with sound, natural color motion pictures of living persons and actual scenes. It has, however, competition in the cartoon field from the Cinecolor Company which produces cartoons by the Cinecolor process. According to this process the sound-track is produced in blue. This type of sound-track is not appropriate for film intended for general release; under certain conditions it gives trouble because a film must be prepared to meet any theatrical projection conditions anywhere, inasmuch as the producer does not know in what theatres the film is going to be used. Difficulties are encountered with these Cinecolor cartoons due to the Cinecolor sound-track, for the reasons heretofore stated (R. p. 37).

Corresponding Foreign Patents.

Patents on the Troland invention have been granted in every foreign country in which application has been made. These patents are (R. p. 36) :

British Patent	No. 344,026, dated December 20, 1928.
German Patent	No. 528,316, dated December 4, 1929.
French Patent	No. 685,656, dated November 27, 1929.
Argentine Patent	No. 35,100, dated January 9, 1931.
Canadian Patent	No. 330,580, dated February 28, 1933.

The claims of these patents correspond to those in the United States application (Finding of Fact No. 6, R. p. 12). For example, claim 1 of the British patent (*Exhibit 9*, R. p. 132, which is identical with disallowed claim 11 in the Troland application), reads as follows:

"A cinematographic film for concurrently reproducing pictures and concomitant sounds and having longitudinal picture and sound bands, characterized in that the picture band records scenes in natural colors and the sound record

is formed in black-and-white, whereby color pictures and records of both high and low acoustic frequencies may be accurately reproduced from the same film."

III. LAW ON PATENTABILITY APPLICABLE TO THE CASE.

The present appeal on the admitted and uncontradicted evidence is governed by *Wach v. Coe*, 64 App. D. C. 235.

There as here it appeared that foreign patents had been granted on the subject-matter involved in countries having patent examination systems similar to our own and that fact was regarded as persuasive evidence of invention.

In that case as in this there was great utility which was accepted as evidence of invention.

In that case as in this the new device was apparently simple. In that case this Court said, at page 237:

"Many times has it been said that the object of the patent law is the benefit to the public. To that end section 4886, R. S. (35 USCA sec. 31), expressly provides that the invention or discovery must be 'new and useful'. Evidence of great utility of a device may in some circumstances be accepted as evidence of invention. 'Where the method or device satisfies an old and recognized want, invention is to be inferred, rather than the exercise of mechanical skill. For mere skill of the art would normally have been called into action by the generally known want.' *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U. S. 464, 55 S. Ct. 449, 454, 79 L. Ed.—, decided March 4, 1935. The apparent simplicity of the new device often leads to the assertion by inexperienced persons that any one familiar with the subject could have produced it, 'but the decisive answer is that, with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to any one before'. *Potts & Co. v. Creager*, 155 U. S. 597, 15 S. Ct. 194, 199, 39 L. Ed. 275. In *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U. S. 428, 31 S. Ct. 444, 55 L. Ed. 527, the court said: 'Knowl-

edge after the event is always easy, and problems once solved present no difficulties, indeed, may be represented as never having had any, and expert witnesses may be brought forward to show that the new thing which seemed to have eluded the search of the world was always ready at hand and easy to be seen by a merely skillful attention. But the law has other tests of the invention than subtle conjectures of what ^{might} have been seen and yet was not. It regards a change as evidence of novelty, the acceptance and utility of change as a further evidence, even as demonstration.' In *Lucke v. Coe*, 63 App. D. C. 61, 69 F. (2d) 379, 383, we said: 'All the patents relied upon by the Patent Office as anticipating Lucke's device were before these engineers, yet, highly skilled in the art as they were, they were unable to do what Lucke has done; namely, produce a machine that is a greater advance over the prior art than any one of the patents referred to by the Patent Office tribunals. It is comparatively easy, now that the Lucke device is in evidence, to take this and that from the references and achieve a *nunc pro tunc* solution of the problems confronting Lucke when he made his invention.' See, also, *In re Eastwood*, 33 App. D. C. 291; *In re Huff*, 48 App. D. C. 258, and *In re Coykendall*, 58 App. D. C. 280, 29 F. (2d) 868."

"What has been ruled to be obvious was not obvious to the highly skilled marine engineers who attempted to solve the problem. Appellant succeeded where they failed, and his success in the circumstances should be recognized by the granting of a patent."

See also *General Electric Co. v. P. R. Mallory & Co.*, 294 F. 562; *Proctor & Gamble Co. v. Berlin Mills*, 256 F. 23; *A. Kimball Co. v. Noesting Pin Ticket Co.*, 262 F. 148; *Skinner Bros. Belting Co. v. Oil Well Improvement Co.*, 54 Fed. (2d) 896.

In the last cited case Judge McDermott of the Tenth Circuit Court of Appeals said (p. 898) :

“Is this a patentable combination? It is said that all of the elements are old; this is true, but immaterial. *Leeds & Catlin Co. v. Victor Talking Mach. Co.*, 213 U. S. 301, 29 S. Ct. 495, 53 L. Ed. 805; *Bates v. Coe*, 98 U. S. 31, 25 L. Ed. 68. In that textbook of patent law, *National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co.* (C. C. A. 8), 106 F. 693, 706, Judge Sanborn lays down the rule: ‘A new combination of old elements, whereby a new and useful result is produced, or an old result is attained in a more facile, economical, and efficient way, may be protected by patent as securely as a new machine or composition of matter. *Seymour v. Osborn*, 11 Wall. 516, 542, 548, 20 L. Ed. 33; *Gould v. Rees*, 15 Wall. 187, 189, 21 L. Ed. 39.’

“The patent in suit meets this test. It is said that no inventive genius, but only mechanical ingenuity, was needed to think of this device. No formula has been prescribed which affords a solution of the vexed question, Has inventive genius been exercised? We know that the simplicity of the device does not belie inventive genius. *Hughes Tool Co. v. International Supply Co.* (C. C. A. 10), 47 Fed. (2d) 490, 492, and cases there cited. We know that we should try to eliminate ‘hindsight’; we know that the fact that the problem existed, that financial reward awaited a solution, and that no one did think of it, is strong evidence of invention.”

In this case as in *Wach v. Coe* (*supra*) and *Skinner Co. v. Oil Well Improvement Co.* (*supra*) the patentability of a combination is involved. In this case it is the film combining pictures in natural color and a sound-track in black-and-white. The problem of securing motion pictures in natural color with accurate sound reproduction existed before the application in suit

was filed. That problem has been solved by Troland but the solution was not a ready one, for the Appellant Technicolor Motion Picture Corporation at first used pictures in natural color which were synchronized with phonograph records (R. p. 36). Except for Troland that problem has not been solved to date, for the only competition that Technicolor Motion Picture Corporation has is in the limited cartoon field with the inferior colored sound-tracks. In this case, as in the last-cited cases, financial reward awaited a solution and such reward has now been given to Troland's solution.

As the United States Supreme Court has itself said, such evidence is not merely evidence but a demonstration. See the quotation from *Diamond Rubber Co. v. Consolidated Wire Co.*, 220 U. S. 428, in this Court's opinion in *Wach v. Coe (supra)*.

IV. THE PRIOR ART.

The three references relied upon by the Patent Office are the United States patents to Ries No. 1,473,976, Wyckoff et al. No. 1,303,837 and Thornton No. 1,361,783. Concerning these patents the witnesses, Mr. Ball of the Technicolor Motion Picture Corporation and Professor Ballard of Cornell University, both eminently qualified as experts in the field of sound reproduction with motion pictures in natural colors, testified in substance as follows :

Ries No. 1,473,976 (Exhibit 2, R. p. 95).

This patent discloses the ordinary type of motion picture film in which both pictures and sound record are produced in black-and-white by the usual photographic method (*Exhibit 7*). It has nothing whatsoever to do with the problem of reproducing sound along with pictures in natural colors. According to the Ries specification both pictures and sound are photographed on the same negative, the film is then developed to produce images of both pictures and sound in black silver, and the film is then dried. From this negative both pictures and sound are printed on a single positive and then developed in black-and-white. In

both negative and positive the pictures and sound records are both developed into black-and-white silver images in the same developing process.

As to the Ries patent the Trial Court found (R. p. 12):

“3. The Ries patent No. 1,473,976 discloses the production of a motion picture film having pictures of the scene in black and white and a record of the sound in black and white. The pictures and the sound record are photographed simultaneously on the same film and then developed together to produce a single black and white negative of the scene and the sound record. Then a positive of both the pictures and the sound record is printed simultaneously on a single positive film from the negative by the ordinary photographic printing process. Then the positive print is treated by the usual methods to develop and fix both the pictures and the sound record at the same time.”

Thus, the Ries patent discloses the ordinary commercial product in which both pictures and sound are produced photographically in black-and-white.

Wyckoff et al. No. 1,303,837 (Exhibit 3, R. p. 105):

This patent does not even mention sound records, nor does it relate to a method of making motion pictures in natural colors. On the contrary it relates to the art of making motion pictures in black-and-white by the ordinary photographic process, Wyckoff's idea being merely to tint certain portions of the picture after it has been completed in black-and-white.

After completely finishing a black-and-white film by an ordinary photographic process Wyckoff proposes to tint certain portions of the positive print by applying coloring matter to selected portions of the negative film corresponding to the positive print and then by pressing the two films together to transfer this coloring matter to the positive print.

As Mr. Ball explains on pages 29 and 30 of the Record, the tinted black-and-white pictures of Wyckoff could not approximate pictures in natural colors, particularly for the reason that

the shadows of a black-and-white picture can not be effectively tinted by applying color over the black-and-white image. When projected on the screen the shadows would still appear substantially black and the half-tones would still appear gray, the noticeable effect of the tinting being confined substantially to the high-light portions of the picture.

Thus, the Wyckoff patent not only fails to disclose the claimed combination of a black-and-white sound-track with pictures in natural colors, but it fails to disclose either of the two component parts of the combination claimed by Troland; it discloses no sound-track whatsoever and the pictures are merely tinted black-and-white pictures.

As to the Wyckoff patent the Trial Court found (R. pp. 12 and 13):

"4. The Wyckoff and Handschiegl Patent No. 1,303,837 describes the making of motion pictures in black and white by the ordinary photographic process and then tinting certain portions of the black and white picture with coloring matter after the picture has been completed in black and white. The result is a tinted black and white picture."

"8. There is a vital distinction between pictures in natural colors and tinted black and white picture particularly for the reason that with tinted pictures the color effect can be secured, even in a limited degree, only in the high-light portions and not in the shadows, the heavy deposit of silver in the shadows preventing the color from producing the proper effect; also for the reason that pictures in natural colors require at least two and preferably three complementary colors and Wyckoff et al. disclose only one 'tint'."

Combining Wyckoff and Ries.

Referring to the Patent Office proposal to combine the Wyckoff and Ries methods, while the Ries pictures could presumably be tinted as described by Wyckoff the resulting product would not comprise the combination of pictures in natural colors with a black-and-white sound-track as claimed by Troland but it would

comprise the combination of both pictures and sound-track in black-and-white, the black-and-white pictures merely being tinted in certain selected areas.

Concerning the Patent Office proposal to combine the Wyckoff and Ries disclosures, as an anticipation of the Troland claims, the Trial Court found (R. p. 13) :

" 10. It is not possible to combine the Ries and Wyckoff et al. patents in any way to perform the method or secure the product of any of the twelve claims contained in said application Serial No. 327,419.

" 11. If it be possible to combine Ries and Wyckoff et al. in any way the result would be a black and white picture record, with a color tint superposed, and a black and white sound track, which is substantially different from the Troland invention.

" 12. It is not possible to combine the Ries and Wyckoff et al. patents in any way to secure a motion picture film having pictures in natural color and a sound record in black and white."

Thornton No. 1,361,783 (Exhibit 4, R. p. 114) :

This patent does not disclose any sound-track at all. It shows a collection of old color processes which the patentee evidently collected from various works of reference on photography. The patent claims the process of producing motion picture film involving the use of these old processes of making still pictures in natural colors. While some of the old processes compiled by Thornton may be satisfactory for making still pictures, they would not be suitable for use in the art of motion pictures; and no such motion picture film has ever appeared in the industry (R. pp. 30 and 41).

The principal reason why these old processes are inapplicable to motion pictures is because they all involve the use of half-tone pictures (claims 1, 2 and 5 to 11 inclusive) or broken-tone markings (claims 3, 4, 12, 13 and 14). This is the kind of picture commonly used in magazines and newspapers. The pic-

tures are not continuous like photographs but are broken up into dots. The number of dots per square inch is the same throughout the picture, high-lights and shadows being produced by varying the size of the dots; in the shadows the dots are large and in the high-lights they are minute. The half-tone pictures in "Vanity Fair" (*Exhibit 10*), when viewed under a magnifying glass, clearly show the composition of such a picture, particularly if examined in a high-light portion such as the face of one of the characters.

This half-tone type of picture, which is the only kind either described or claimed by Thornton, is satisfactory for still pictures, but is utterly inapplicable to motion pictures because of the high degree of magnification employed in projecting the pictures. On the film the pictures are about the size of a postage stamp, while on the screen they are many feet in each dimension. Consequently if any one were foolhardy enough to attempt to make half-tone motion pictures, the dots in the pictures, even if made as small as possible (too small to be visible to the naked eye), would appear on the screen at least as large as golf-balls and, in the larger theatres, as large as baseballs. As described by Professor Ballard, if the half-tone picture of the face of an actor were projected on a screen it would "look like the subject had a bad case of smallpox . . . if you could recognize the features at all" (R. pp. 41 and 42).

One of the various and sundry processes compiled by Thornton is a so-called hydrotype process which, like the Troland imbibition process, involves the use of a watery ink for mechanically printing pictures in color. However, as Thornton proposes to use this process it would be inapplicable to motion pictures, not only because of the half-tone characteristic common to all of his proposals, but also for the reason that in printing the pictures upon the so-called blank the dyes would diffuse laterally and blur as in printing with ink on a blotter. Indeed, Thornton recognized this difficulty and, realizing that he could not print all of the colors by imbibition, he proposed to print only two of the three colors by imbibition, and to

obtain the requisite degree of definition or sharpness by printing the third color component by a so-called cyanotype process (Thornton's specification, page 4, lines 108 to 127, R. p. 117).

The cyanotype process starts with a black-and-white silver image, then by chemical treatment called "toning" the black silver of the image is converted into a transparent colored salt. While various treatments result in different colors the cyanotype treatment results in a blue color. After thus producing a blue image in a sensitized emulsion Thornton proposed to print over the cyanotype image two other images, red and yellow, by imbibition.

As to the Thornton patent the Trial Court found (R. pp. 12, 13 and 14):

" 5. The Thornton Patent No. 1,361,783, describes various methods of color printing."

" 13. Patent No. 1,371,783 to Thornton makes no mention of sound tracks or sound reproduction.

" 14. Said Thornton patent has never been used in the production of motion pictures.

" 15. Said Thornton patent describes no process which will give an acceptable motion picture film in natural color.

" 16. Said Thornton patent describes various methods of color printing by half tone or broken tone processes.

" 17. All of the half tone or broken tone color processes described in said Thornton patent result in pictures made up of a series of small colored dots or lines which when enlarged to the necessary dimensions for motion picture reproduction give badly spotted pictures if any pictures at all can be secured.

" 18. Said Thornton patent, among the various half tone or broken tone processes described, discloses an imbibition process which the patentee recognizes to be impractical due to diffusion of the dyes in the gelatin of the film.

" 19. Said Thornton patent describes a cyanotype method of overcoming some of the difficulties of diffusion, said method being a half tone or broken tone one and includes

the use of a grained, cross-hatched or grooved celluloid band which would result in a film unsuitable for motion picture work."

Thus, Thornton not only fails to disclose the claimed combination of natural-color motion pictures with a sound-track in black-and-white, but he discloses no sound-track whatsoever and no pictures suitable for motion picture projection.

Combining Thornton and Ries.

Referring to the Patent Office proposal to combine the Thornton and Ries processes, if the pictures on the Ries film be produced according to the Thornton cyanotype method the Ries sound-track could not remain black-and-white because in converting the silver of the pictures into a blue salt the silver of the sound-track would be converted into a blue salt at the same time (R. pp. 33 and 43). And if the Ries pictures could be produced according to the Thornton cyanotype process while maintaining the sound-track in black-and-white, even then the resulting product would not be useful in the art of motion pictures because of the half-tone composition of the pictures characteristic of all of Thornton's proposals (R. p. 41).

For the reasons stated by Mr. Ball and Professor Ballard, it is impossible to put colored pictures, such as described by Thornton, on the Ries film beside the black-and-white sound-track, as the Examiner has suggested (R. pp. 34 and 44). Motion picture film can not be made by a half-tone process as described by Thornton and even if it could the Ries film is not adapted to receive imbibition prints because the dies would spread, thereby blurring the pictures too much for motion picture projection (R. p. 43).

Concerning the Patent Office proposal to combine the Thornton and Ries disclosures, as an anticipation of the Troland claims, the Trial Court found (R. p. 14):

"20. The pictures produced by the Thornton cyanotype method cannot be used in combination with the black and

white sound track of the Ries patent to produce a film with pictures in natural color and a sound track in black and white for the reason that in making the cyanotype image of the scene, which is a blue image, the sound track will also become colored.

"21. It is not possible to combine any of the Thornton methods with the black and white sound track of the Ries patent to produce pictures in natural color suitable for motion picture projection and a sound track in black and white."

In cases such as this where the defense against patentability is based upon a combination of references no one of which discloses the claimed combination and where it further appears that the references can not be combined as proposed, the courts have uniformly refused to deny patentability.

In re Welch, 58 App. D. C. 369, 1929:

"It is plain that neither Valoche nor Frey, if taken alone, can be said to anticipate appellant's device; and we think it clear that taken together *they do not combine to make an operative device*. On the other hand appellant's device discloses a new combination of elements effectively designed to perform a serviceable function in a practical and important art, and shows actual invention." (Italics ours.)

In re Dawe, 53 Fed. (2d) 543 at page 544, C. C. P. A. 1931:

"No one of the references shows, or suggests, any such tractor wheel as appellant discloses, and no one of them is designed to perform the particular or specific work which appellant's device is shown successfully to perform. *It would not be possible to modify any one of the devices of the references by substituting features or elements of the structures of the others, so as to produce the device of appellant.* The features of the several references that are somewhat analogous to the features disclosed in the application would require material and radical modification in order to make

them conform to appellant's production, and it seems to us that the modifications required are not obvious.

"Under such circumstances, in the light of numerous decisions of this and other courts, we are convinced that inventive conception and execution are present in appellant's structure for which he is entitled to a patent. *In re Frank Hamachex*, 36 F. (2d) 119, 17 C. C. P. A. 633; *In re William Price et al.*, 36 F. (2d) 432, 17 C. C. P. A. 736; *In re Uddenborg*, 39 F. (2d) 710, 17 C. C. P. A. 1016, and cases cited in these several decisions." (Italics ours.)

The invention involved in the instant appeal is a combination; the combination on one film of pictures in natural color and a sound-track in black-and-white. The references just discussed relied on by the Patent Office do not even suggest that combination, much less describe how it can be made. In fact the references can not be combined to produce Troland's new film and the Trial Court has so found as a fact.

The Troland specification itself refers to copending applications of other inventors for methods of producing pictures in natural color. To these applications the Patent Office itself attached no importance. They were not mentioned either by the Examiner or by the Board of Appeals and it would seem for an unanswerable reason. They do not suggest the combination before this Court and there was no evidence whatever before the Patent Office, and there is none in the record before this Court, as to any method by which these colored pictures could be combined on the same film with black-and-white sound.

But the Appellants' case goes further than a mere reliance on the manifest shortcomings of the art cited by the Patent Office.

It has been affirmatively proved by uncontradicted evidence:

First, that at the time of Troland's invention there was no known film or film coating suitable to receive pictures in natural colors and the sound-track in black-and-white.

Second, at the time of Troland's invention there was no

known method or means of providing on a single film pictures in natural colors with a black-and-white sound-track.

(Record page 34, last two paragraphs; Record page 44, last two paragraphs; Fact Finding No. 9, Record page 13.)

V. THE LAW GOVERNING PRODUCT CLAIMS.

The general question of patentability is foreclosed to the Defendant, since the Trial Court has adjudged the invention to be new and patentable in terms of process and the Defendant has taken no appeal.

The Trial Court has also expressly found on the evidence that the product is new (Finding of Fact No. 9, R. p. 13):

“9. Troland was the first, so far as the record shows, to combine on the same film motion pictures of the scene in natural colors and a record of the accompanying scene in black and white.”

The real question therefore is whether the Plaintiffs shall have a patent for the new product, which necessarily results from the patentable process, as well as for the process.

The Patent Statute itself defines the subjects for which patents are granted. R. S. sec. 4886 (U. S. C. Title 35, sec. 31):

“Any person who has invented or discovered any new and useful [1] art, [2] machine, [3] manufacture or [4] composition of matter. . . .”

A manufactured product or article is covered by the statutory word “manufacture”; the process or method of making it is covered by the statutory word “art”. Both may be patented, if new, and a patent for one does not exclude a patent for the other. It is a mere matter of procedure whether they are both patented in the same patent or in separate patents.

This question of patenting the product of a process, as well as the process, has been many times judicially dealt with.

In *Goodyear v. The Railroad*, 2 Wall. Jr. 356, involving the

Goodyear process of vulcanizing rubber and the resulting product, Mr. Justice Grier said (p. 360) :

“ . . . It must be obvious, also, that there is not only a distinction, but a wide difference between one who merely invents a new method or process, by which a well known fabric, product, or manufacture is produced in a cheaper or better way, and the discovery of a new compound, substance, or manufacture, having qualities never found to exist together in any other material. In the first case, the inventor can patent nothing but his process, and not his composition of matter. In the latter, both are new and original, and both patentable, not severally, but as one discovery or invention. It is evident, also, that the question of infringement must, in such cases, depend on different conditions. Steel is a well known substance. Any one who could devise a new and cheaper method of combining the iron and carbon in order to form it, could patent his process only ; and every other person would be at liberty to devise any different process for effecting the same purpose. But if steel, as a substance, was before unknown, the person who first discovered that a composition of iron and carbon could be made to assume such valuable qualities, would have a right to patent not only his process, but his product. . . . ”

Page 365 :

“ Now, what is this India rubber, cured substantially, as described in Mr. Goodyear's description? It is clearly not merely an improved method or process of producing an old and well known composition or material, but it is a new product, fabric, manufacture, or composition of matter, having qualities possessed by no other known material. This is what is described and claimed in the patent, a new product as well as a new process.

“ The product and process being both new and proper subjects of a patent, the patentee has a right to prohibit

the sale or use of the composition, unless when purchased from persons licensed by him to use the process and vend the product."

In *Powder Co. v. Powder Works*, 98 U. S. 126, the Supreme Court again discussed the point. The question came up on a reissue patent claiming certain compounds of nitro-glycerine with gun powder and the like. The original patent was for a *process of exploding* nitro-glycerine mixed with gun powder and the like, and did not mention that there was any new *composition* invented by the patentee. The compounds in question were not produced by the process, but were substances used in practicing the process. The precise point decided was that the reissue patent for the *composition* was not for the "same invention" as the original patent for the *process of exploding* certain compositions. Mr. Justice Bradley said (p. 136):

"If the patent had been not for the mode or process of exploding nitro-glycerine, but for the process of compounding nitro-glycerine with gunpowder and other substances, inadvertently omitting to claim the exclusive use of the substances so produced, the case would have been one of very different consideration. That was the case with Goodyear's patent, which was issued in 1844, and claimed only the process of vulcanizing india-rubber. In 1849 it was surrendered, and the two new patents issued in lieu thereof,—one for the process, and the other for the composition. In 1852, the validity of these reissues came up for consideration in the third circuit, in the case of *Goodyear v. Day*, which was argued by Mr. Choate, Mr. Webster, and other eminent counsel. Mr. Justice Grier disposed of the objects as follows: 'We now come to the objections which have been made to the reissued or amended patents of 1849. The first objection is that the patents of 1844 and 1849 are not for the same invention. This objection is not founded in fact. Both patents are for precisely the same invention or discovery. They both describe, in nearly the same word,

the best mode of manufacturing india-rubber, by exposing it to a high degree of heat in connection with sulphur and white lead; by which treatment the substance is endowed with new and valuable qualities which it did not possess before. The discovery is the same; the mode of manufacturing the compound is the same. The first patent had set forth the nature and extent of the invention defectively. There is no reason to doubt the *bona fides* and propriety of the reissue. It is apparent on the face of the papers, even if the action of the commissioner on that point was not conclusive.' Again, he adds: 'The fourth objection is "that the latter patent claims more than was contained in the original." If the latter patent is for precisely the same invention, art, or discovery as that described in the first, the objection that it claims more is a mistake of fact. If the last patent differs from the first only in stating more clearly and definitely the real principles of the invention, so that those who wish to pirate it may not be allowed to escape with impunity through the imperfection of the language used in the first, there has arisen one of the cases for which it was the intention of the act of Congress to provide, and the objection is worthless in point of law.' This case is partially reported in 2 Wall. Jr. 283, but the opinion of Mr. Justice Grier is not stated in full. In another case, arising on the original patent of Goodyear, reported in 2 Wall. Jr. 356, Mr. Justice Grier used this expression: 'The product and the process constitute one discovery.' The product in Goodyear's invention was the direct result of the process. They were parts of one invention, and, except in imagination, could no more be separated from each other than the two sides of a sheet of paper, or than a shadow from the body that produces it."

In *Rubber Company v. Goodyear*, 9 Wall. 788, the Supreme Court said (Swayne, J., at p. 796):

"Patentable subjects, as defined by the patent law, are

‘any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter.’ A machine may be new, and the product or manufacture proceeding from it may be old. In that case the former would be patentable and the latter not. The machine may be substantially old and the product new. In that event the latter, and not the former, would be patentable. Both may be new, or both may be old. In the former case, both would be patentable; in the latter neither. The same remarks apply to processes and their results. Patentability may exist as to either, neither, or both, according to the fact of novelty, or the opposite. The patentability, or the issuing of a patent as to one, in nowise affects the rights of the inventor or discoverer in respect to the other. They are wholly disconnected and independent facts. Such is the sound and necessary construction of the statute.”

Buono v. Yankee Maid Dress Corp., 77 Fed. (2d) 274 (C. C. A. 2), involved a patent for a chain-stitch sewing machine which made a “blind-stitch” and skipped some stitches, and a product patent for the kind of stitch made by the machine. The machine patent was held valid. The product patent was held invalid because the product *per se* was old; it was the identical chain stitch which skipped some stitches that had long been made by hand. The court said (L. Hand, J., at p. 279):

“At any rate a product patent not so limited [*i. e.* limited merely to the product of a particular machine or process]—and the patent in suit is not—must be new as such, that is, regardless of the process or machine which makes it; and it must stand upon its own invention, again independently of the machine or process which makes it. . . . (Cases cited.) It would seem to follow that the invention in the case of such a product patent must lie exclusively in the conception of the product, and regardless of any method of its production, though of course the patent must disclose one way by which it can be made.

“ While that imposes a severe standard, it is no severer than it should be, if the monopoly is to extend to the product however made. Unless conception alone is the test, and if the inventor may eke out his right by recourse to the ingenuity involved in any process or the machine, he gains an unfair advantage; for the claims cover the product produced by other machines and processes, to which by hypothesis he has contributed nothing. That result was avoided in *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, 48 S. Ct. 474, 72 L. Ed. 867, and *Steinfur Pat. Corp. v. William Beyer, Inc.*, 62 Fed. (2d) 238 (C. C. A. 2), on the ground that the claims were too broad; but really the difficulty is deeper. At times indeed a process may leave traces in the product and the difficulty is avoided, but that is seldom or never true of the product of a machine; and it was certainly not the case here. The stitch was not new; Julius Buono testified that his object and his brother's was to get up a machine which should imitate, so far as possible, the hand chain-stitch which skipped some stitches. The claims seek a monopoly for just that, not for a stitch made on the machine—whether or not a patent could have been secured for that—but any stitch so made, even a hand stitch. The patent is invalid.”

Applying to the case at bar the principle that the patentability of a product may lie in the conception of the product, apart from the process by which it is made:

Dr. Troland's conception of a motion picture film having pictures of the scene in natural colors and a sound record in black-and-white was absolutely new quite apart from the ingenuity required for making the new product. No such thing had in fact ever been done or thought of before. The contrary has never been suggested by the Patent Office, or by the Board of Appeals, or by the Trial Court, or by the evidence. Indeed, the court expressly found that the film was new (Finding of Fact No. 9, R. p. 13), and the Board of Appeals (R. p. 93) expressly

ruled that there was no distinction as to patentability between the conception as stated in the product claims and as stated in the method claims. Both the product and the process are admittedly new and the Trial Court having adjudged the invention to be patentable erred in denying claims for the new product as well as claims for the new process.

There are many cases holding that patentable invention lies in the idea conceived, in perceiving what is the cause of a difficulty and correcting it even though the means of carrying out the idea, once the concept is arrived at, may be simple (and it was far from simple in the Troland invention).

“In every case the idea conceived is the invention.”
Gill v. United States, 160 U. S. 426 at 434.

“Patentability has often been found in discovering the difficulty with an existing structure and correcting the same, even though the means are old and their mere adaptation to the new purposes involves no patentable novelty.”
Kurtz v. Bell Hat Lining Company, 280 Fed. 277 at 282.

“In considering this phase of the controversy we must not lose sight of the fact that one essential part of Eibel's discovery was that the trouble causing the defective paper product under high machine speed was in the disturbance and ripples some ten feet from the discharge and that they were due to the unequal speeds of stock and wire at that point and could be removed by equalizing the speeds. Invention was not the mere use of a high or substantial pitch to remedy a known source of trouble. It was discovery of the source not before known and the application of the remedy for which Eibel was entitled to be rewarded in his patent.” *Eibel Company v. Paper Company*, 261 U. S. 45 at 67.

“Invention may reside in the conception of the idea for remedying defects, and in the valuable result even though the means for carrying out this concept be simple and old.” *Matrix v. Kellar*, 34 Fed. (2d) 510 at 511.

See accord, *Aeolian Skinner Company v. Shepard's Broadcasting Service*, 28 U. S. P. Q. 145.

There is a very practical importance in patenting an invention in terms of product as well as in terms of process. If an imitator should produce the film abroad and import it into this country, there would be no infringement of the United States process patent and the Plaintiffs would be helpless against this kind of infringing competition unless they had also a product patent. But the use or sale of such imported film in this country would infringe the product claims even though the process was practiced only abroad.

The Paramount v. Tri-Ergon case.

As to the product claims the Trial Court also found against the Plaintiffs on the supposed authority of *Paramount Publix Corp. v. American Tri-Ergon Corp.*, 294 U. S. 464. If it is applicable at all it is just as applicable against the process claims as to which relief was granted as against the product claims as to which relief was denied. In fact it is applicable to neither.

The claims of the patent then in suit covered a method of producing a positive film carrying pictures and sound record in black-and-white which consisted in photographing, on separate negatives, the scene and the accompanying sound, and then printing a single positive from these two negatives. The court found as a fact that in all of this there was nothing new. The final result, the positive film, was not new, as it had been old to secure a positive film with black-and-white sound and black-and-white scene by printing from one negative film containing both records from separate negatives, by making from those separate negatives separate positives and then mechanically uniting the positives. Indeed it was old to make separate negatives of scene and sound and to print these two negatives on a single positive, the court having found (middle of page 472):

“The Greensfelder Patent, U. S. No. 1,254,684, of 1918, discloses a method for printing, from separately exposed

and developed negatives, a sound record and a picture record on the same side of a single positive film."

Compare this finding of fact with the claims involved in that suit, the court having found the following to be typical (middle of page 469) :

"5. A process for producing a combined sound and picture positive film, for talking moving pictures, comprising photographing a sequence of pictures on one length of film, and simultaneously photographing on another length of film a corresponding sequence of sounds accompanying the action, separately developing the two negatives in a manner appropriate for each, and printing the sound and picture negatives respectively upon different longitudinally extending portions of the same sensitized film, to form the sound sequences at one side of and along the picture sequence."

Thus, in *Paramount v. Tri-Ergon* neither the process nor the product was new and the court so found as a matter of fact.

In the present case, on the other hand, both process and product are new, relief having been granted by the Trial Court as to the process claims (6, 7, 8 and 9) and the product having been found to be new (Fact Finding No. 9, R. p. 13).

VI. SUMMARY.

Reduced to its simplest terms the case comes to this:

The Troland invention resides in combining on the same positive film motion pictures in natural colors and a sound record in black-and-white. This was admittedly new with Troland.

The contention of the Patent Office is that since Ries discloses a film having black-and-white pictures and a black-and-white sound record (these were simultaneously developed silver images on the same film), and since Wyckoff discloses a film having black-and-white pictures with certain areas tinted (not pictures in natural colors and having no sound record of any kind) and

Thornton discloses a film having colored pictures (made partly by imbibition and partly by toning but all by the half-tone or broken-tone method, and having no sound record of any kind) there would be no invention in applying the Wyckoff or the Thornton colored pictures in the Ries black-and-white sound record.

The Patent Office does not suggest how this could be done, and the uncontradicted testimony of two experts of exceptional qualifications and experience in this art is that it *could not be done* with the knowledge of the art prior to the Troland invention. This would seem to demolish the sole basis of rejection by the Patent Office.

The *Paramount v. Tri-Ergon* case, which the Trial Court also relied upon in disallowing the product claims 3, 4, 5, 11 and 12, is not pertinent because in that case both the product and the claimed method of producing the product were old; here the product is new (Finding of Fact No. 9) and the claimed method of producing the product has been held to be patentable (see allowed method claims 6, 7, 8 and 9).

The Troland invention is important; it has achieved great commercial success; it has been patented in every other country in which application has been made, with claims of the same scope as those here involved; and since it has not been anticipated by any prior art reference or combination of references it is entitled to the protection of a patent in this country.

Respectfully submitted,

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Attorneys for Appellants.

April 9, 1936.

THE RE. IDENT. BUREAU

UNITED STATES
COURT OF APPEALS FOR THE
DISTRICT OF COLUMBIA

FILED APR 25 1936

Monroe R. ...

No. 6615

CLERK

**In the United States Court of Appeals
for the District of Columbia**

CAMBRIDGE TRUST COMPANY, EXECUTOR OF THE
ESTATE OF LEONARD T. TROLAND, DECEASED, TECH-
NICOLOR MOTION PICTURE CORPORATION, AND
TECHNICOLOR, INC., APPELLANTS

v.

CONWAY P. COE, COMMISSIONER OF PATENTS,
APPELLEE

APPEAL FROM THE SUPREME COURT OF THE DISTRICT
OF COLUMBIA

BRIEF FOR THE COMMISSIONER OF PATENTS

E. F. WHITEHEAD,
Solicitor, United States Patent Office.

In the United States Court of Appeals
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OCTOBER TERM, 1935

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BRIEF FOR THE COMMISSIONER OF PATENTS

This case comes before the Court on appeal from so much of the decree of the Supreme Court of the District of Columbia as dismissed the bill of complaint as to certain claims involved in a suit brought against the Commissioner of Patents under the provisions of Section 4915 R. S. (35 U. S. C. A. 63).

The claims presented in the bill were 12 in number. Of these, the Court below held claims 6, 7, 8, and 9 allowable. In its brief appellants have waived the appeal as to claims 1, 2, and 10. There remains for consideration by this Court claims 3, 4, 5, 11, and 12.

These claims read as follows:

3. A motion picture film having pictures formed thereon in natural colors and a sound record developed thereon in black and white.

4. A motion picture film having pictures formed thereon in natural colors and a developed silver image of a sound record.

5. A motion picture film having a series of pictures dye printed thereon in a plurality of natural colors and a silver image representing sound wave vibrations photographically developed thereon.

11. A cinematographic film for concurrently reproducing pictures and concomitant sounds and having longitudinal picture and sound bands, characterized in that the picture band records scenes in natural colors and the sound record is formed in black-and-white, whereby color pictures and records of both high and low acoustic frequencies may be accurately reproduced from the same film.

12. A motion picture film having pictures formed thereon in natural colors and a sound record formed thereon in black-and-white.

As appears from the claims, the subject matter in suit is a motion picture film in which the pictures are formed in natural colors and the sound record in black and white. The five claims, as will be obvious, differ only slightly and, as admitted in appellant's brief, are essentially for the same product. Such films are to be used in the well known "talking movies", in which the picture portion of the film is projected upon a screen and through well known and appropriate methods the words spoken by the actor are reproduced audibly.

In his application (R. p. 50) the applicant stated "the sound record may be produced by any well-known method" and "The color picture record may be formed in various ways, but the imbibition method described in copending applications Serial No. 194640 and Serial No. 194641 is particularly suitable."

Again it was said (R. p. 52):

According to the preferred mode of procedure the space 4 is first exposed to light through a negative produced as above described simultaneously with the taking of the motion pictures. The space 4 is then developed in the usual way to produce the sound record 6 in black and white.

* * * * *

If the pictures are to be printed by imbibition the gelatine between the rows of sprocket holes is hardened, as by subjecting to a 5% solution of basic chrome alum, pref-

erably after the sound record has been made. The pictures are then printed by the well known imbibition procedure * * *.

It thus appears that applicant has admitted in his application that he was not the inventor of any particular method for printing the sound record in black and white nor the inventor of any particular method for printing the pictures in colors. It is to be noted at this point that the two applications referred to in the matter above quoted were not applications of the party Troland but were applications of William E. Whitney and Daniel F. Comstock, respectively, which were assigned to Technicolor Motion Picture Corporation. These two applications have matured into patents Nos. 1707699 and 1707710, as appears from the records of the Patent Office, of which this Court can take judicial notice.

The examiner in his first action cited two references:

Reisz, 1500037, July 1, 1924,

Wyckoff et al., 1303837, May 13, 1919,

stating that there would be no invention in coloring the picture images of Reisz's original film by the process disclosed by Wyckoff and leaving the sound record a silver image [that is, an image in black and white]. In response to that rejection it was not argued that the Wyckoff patent did not disclose an operative process.

In response to that first action (R. p. 58) it was said:

As stated in the original specification it is old both to form a sound record by a photographic process and also to form picture records by an imbibition process. *The cited references therefore add nothing to the record* since they merely disclose these old processes used separately without the faintest suggestion of forming both sound and picture records on the same film, the sound record by a photographic process and the picture by an imbibition process. Indeed the Official action indicates that the Examiner agrees with this statement of facts. (Emphasis added.)

In the next Official action (R. p. 63) the examiner cited two additional patents,

Ries, 1473976, Nov. 13, 1923, and
Thornton, 1361783, Dec. 7, 1920,

stating that

Ries discloses picture and sound records photographically recorded upon a single film which is subsequently developed.

* * * * *

The claims state nothing more than the production upon Ries' positive of a colored picture record in accordance with one of the processes disclosed in said latter patents and printing the sound record by the usual photographic processes as indicated by Ries.

In reply to that action it was said (R. p. 65):

As disclosed for example in the patent to Reis it is old to make sound-picture film with

both the sound track and the pictures reproduced photographically in black-and-white.

While not disclosed by the record, patents have also been issued on sound-picture film in which both the sound track and the pictures are reproduced in color (British patent of de Forest 319779, June 12, 1930; French patent of Kodak 696843, October 20, 1930; and French patent of Multicolor, 697095, October 21, 1930).

However, so far as we are aware, applicant is the first to conceive the combination of color pictures and black-and-white sound track, albeit the Kodak Company has subsequently (June 1, 1929), applied for a patent (corresponding to French patent 696354 published December 30, 1930) for the same combination, evidently regarding it as a patentable invention.

In the brief filed before the Board of Appeals in the Patent Office (R. p. 81) it was said:

It is now common practice to reproduce pictures and sound from a single film on which both pictures and sound are recorded in black-and-white in the form of silver images. Applicant makes no claim to such films. Neither does he claim film in which both pictures and sound are reproduced in color, although the Examiner has cited no art disclosing the latter.

In other words, the case was prosecuted through the Patent Office on the theory that there was an inventive concept in perceiving that a motion pic-

ture film could be printed with the picture in natural colors and the sound record in black-and-white.

At the trial before the Supreme Court of the District of Columbia, however, testimony was introduced to show that neither the Wyckoff patent nor the Thornton patent disclosed a process by which a satisfactory motion picture film in colors could be made.

It is submitted that it is utterly immaterial, in view of the statements above quoted from applicant's specification, the correctness of which may not now be denied by his assignee, whether the Wyckoff and Thornton processes are operative, since, as admitted during the prosecution of the application in the Patent Office, they disclose nothing more than what was admitted by applicant to be old.

The question to be decided, therefore, is whether in view of the Reis patent, No. 1473976, which discloses a film record having both the picture and the sound record in black and white, and the admittedly old processes of printing pictures in colors, there was any invention in a film defined only as having its picture portion colored and its sound record in black-and-white.

It may be noted that applicant's specification, if the references to the prior art are ignored, discloses no method whatever by which such a film could be made. It specifically says that the black-

and-white sound record can be made by well known methods and that the colors are printed by imbibition processes which are described only by reference to the applications of other parties.

One of the reasons, it was stated both in the brief on appeal and at the trial in the Court below, for having the sound record made in black-and-white when the pictures are colored, is that a colored sound record is not satisfactory for use with all kinds of photoelectric cells which are used in the reproduction of the sound. It is stated (see Appellant's Brief, p. 7) that the two principal types of such cells are potassium and caesium and if the color of the colored sound track be chosen to give the best results with a cell of one type it will not give so good a result with a cell of the other type.

The Board of Appeals of the Patent Office in its decision (R. p. 93) said:

In view of the very brief and broad reference to the simple solution of the problem we think that after it was found that color tints interfere with the sound record, if present therein, that inventive concept is not involved in broadly separately producing these two zones on the film leaving the sound record in plain black and white.

It was held by the Circuit Court of Appeals for the 2d Circuit, in *Buono v. Yankee Maid Dress Corp.*, 77 F. (2d) 274, that invention in the case of a product must lie exclusively in the conception of the product and regardless of any method of its

production, though, of course, the patent must disclose one way in which it can be made.

The Court, in its decision, further said:

While that imposes a severe standard, it is no severer than it should be, if the monopoly is to extend to the product however made. Unless conception alone is the test, and if the inventor may eke out his right by recourse to the ingenuity involved in any process or the machine, he gains an unfair advantage; for the claims cover the product produced by other machines and processes, to which by hypothesis he has contributed nothing. That result was avoided in *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, 48 S. Ct. 474, 72 L. Ed. 867, and *Steinfur Pat. Corp. v. William Beyer, Inc.*, 62 F. (2d) 238 (C. C. A. 2), on the ground that the claims were too broad; but really the difficulty is deeper. At times indeed a process may leave traces in the product and the difficulty is avoided, but that is seldom or never true of the product of a machine; and it was certainly not the case here. The stitch was not new; Julius Buono testified that his object and his brother's was to get up a machine which should imitate, so far as possible, the hand chain-stitch which skipped some stitches. The claims seek a monopoly for just that, not for a stitch made on the machine—whether or not a patent could have been secured for that—but any stitch so made, even a hand stitch. The patent is invalid.

This Court, in the case of *In re Decker*, 36 App. D. C. 104, 1911 C. D. 274, held that where an article had been described in a patent or printed publication no subsequent inventor could obtain a patent on that barrel even though the processes disclosed in the prior art for making such a barrel had proved to be inoperative.

While this Court in its decision in the Decker case did not state in so many words that a product patent can be supported only by an inventive concept, that theory is inherent in the conclusions which the Court reached, for it was pointed out in the decision that applicant was not claiming a process for making a barrel, since he had received a patent for that, but was seeking a patent on the product, that is, the barrel itself, and that the inoperativeness of the patents which had been cited might have been material if the Court were considering a process claim.

It is submitted that the Board of Appeals of the Patent Office correctly held that there was no invention in the conception that, if for any reason a colored sound record was undesirable, a sound record in black-and-white, such as shown in the Reis patent, could be used with the picture portion of the film instead of coloring both the picture portion and the sound track.

The principal reason for not coloring the sound record is, as above pointed out, merely that such a sound record can be used only with certain types of photoelectric cells and therefore a film with a

colored sound record might be useful in some theaters but would not be satisfactory in other theaters which use a different type of photo-electric cells.

It is submitted that appellant's argument, that because the Court below allowed certain process claims and no appeal was taken therefrom, it follows that the product must be patentable, is not well taken. It has been repeatedly held by the courts, that where a person devices a process for making a product, and a machine for carrying out the process, all three—product, process, and machine may be patentable, or the product may be unpatentable and the process and machine patentable, or only the machine may be patentable, or none of them.

So far as the product is concerned, this is just as true if the product is lacking in invention as if it is lacking in novelty.

The same argument that because claims for the process had been held patentable it necessarily followed that the product, if, in its specific details it was new, was also patentable, was presented in *In re Higgins*, 1913 C. D. 375, 40 App. D. C. 29. This Court, however, was not convinced by that argument but held the product uninventive in view of the prior art and the claims for such product therefore unpatentable.

In so far as the alleged commercial use is concerned, it is well settled that such use has no bearing on the question of patentability unless that

question is in doubt (see *Paramount Publix Corporation v. American Tri-Ergon Corporation*, 294 U. S. 464, and cases therein cited).

As one of the courts has expressed it, commercial use cannot create a doubt and also resolve it.

In the Memorandum Opinion filed by the Court below (R. p. 11) it was said, after stating that the plaintiff was entitled to a patent containing claims 6, 7, 8, and 9,

The allowance of the remaining claims will be denied, both upon the grounds given by the Board of Appeals of the Patent Office, and the decision of the Supreme Court in the case of *Paramount Publix Corporation v. American Tri-Ergon Corporation* [294 U. S. 464].

It is submitted that there was no error in the latter holding. In the Tri-Ergon case the claims involved were for a process of producing a combined sound and picture positive film. The Court stated that the claim for the process involved three steps, (1) the simultaneous photographing of the picture record and the record of the accompanying sound, each on a separate negative; (2) the separate development of the two negatives in a manner appropriate to each; and (3) the printing, either simultaneously or successively, from the two negatives of the sound record and the picture record side by side on a single positive film. The Court then discussed the prior art and stated that the claim to invention is thus narrowed to the single contention "that the patentees secured the ben-

efit of these well known advantages by resort to the added step of uniting the two separate photographic records, sound and picture, by printing them on a single film", and it was held that that did not amount to invention, since the art had taught how this end could be reached since it was not new to print on a photographic film pictures from separate developed negatives.

The logic of that decision, it is submitted, must lead to the conclusion that the broad conception as set forth in the claims before the Court was not an invention.

It is submitted that the decree of the Court below, denying to plaintiffs claims numbered 3, 4, 5, 11, and 12, was correct and should be affirmed.

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